

DP-300809

IN THE SPECIFICATION

Please amend the specification as follows:

[0016] The CO-selective catalyst alleviates the current problems faced when catalysts comprising a precious metal are employed for CO oxidation, as the present CO-selective catalyst, comprising a modifying agent, is selective to removal of CO in preference to H_2 and hydrocarbon (HC) (e.g., propylene (C_3H_6), methane (CH_4), and the like) removal. Furthermore, the CO-selective catalyst is capable of operating over a greater temperature range than catalysts without a modifying agent. Therefore, in a reforming derived H_2 rich feed, the catalyst of the present disclosure results in the removal of CO with a low waste of hydrogen (e.g., less than about 3 mole% oxidation of H_2) over wide temperature ranges (e.g., over temperatures ranges greater than about $200^\circ C$), resulting in a simple and efficient catalytic system.

[0033] However, as shown in Figure 2, the Pb-containing catalysts (diamonds and asterisks) show upwards of up to about 100% inhibition of H_2 oxidation in comparison to the non-Pb containing catalyst (triangles) which shows H_2 oxidation rates of about 1.5 to about 3.0 micromoles/second at temperatures of about 150 to about $615^\circ C$. As shown in Figure 3, the Pb-containing catalysts (diamonds, asterisks, and triangles) show upwards of up to about 100% inhibition of C_3H_6 oxidation rates in comparison to the non-Pb containing catalyst (circles) which shows C_3H_6 oxidation rates of about 0.03 to about 0.115 micromoles/second at temperatures of about 220 to about $615^\circ C$.

[0054] Figure 9 is useful in showing that even over the temperatures of about 180 to about $400^\circ C$, no measurable amount of CH_4 is formed by the catalyst; whereas, in the conventional catalyst made without the addition of the modifying agent, such as Pb, CH_4 is produced at concentrations ranging from about 0.017 mole% to about 0.057 mole% at temperatures ranging from about 250 to about $300^\circ C$, representing an undesirable catalysis of a unwanted side reaction. The formation of CH_4 is at the expense of consuming H_2 , therefore lowering the efficiency of H_2 in the fuel processing system.